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How to cite:

Cabrero, Daniel G. (2015). User-created persona: Namibian rural Otjiherero speakers. In: Proceedings of the 33rd Annual International Conference on the Design of Communication - SIGDOC '15, pp. 1–6.

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Version: Accepted Manuscript

Link(s) to article on publisher's website:

<http://dx.doi.org/doi:10.1145/2775441.2775484>

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User-Created Persona: Namibian rural Otjiherero speakers

Daniel G. Cabrero
University of West London /
Polytechnic of Namibia
London, UK / Windhoek, Namibia
daniel@personas.technology

ABSTRACT

Persona is a communicative artefact for usability that currently functions under the umbrella of User-Centred Design (UCD). Since we argue usability methods differ across cultures, this project presents a cross-cultural research probe on persona generated by indigenous Otjiherero speakers in Namibia. The objective is to find out how participants in this milieu take on, understand and portray persona artefacts, what goals of User Experience (UX) emerge from the inquiry, and whether the artefacts created simulate or differ from those in literature. Tentative methods scaffold from benefits attained by persona in the attempt to advance persona technical communication in cross-cultural design. This experience report presents initial findings on narrative content, rhetorical preferences, and the physical layout of persona artefacts as so-far constructed by Otjiherero speakers in rural Namibia. The report draws to a close reflecting on present challenges and advances, and indicating upcoming pathways.

Categories and Subject Descriptors

D.2.2 [Design Tools and Techniques]: Object-oriented design methods.

General Terms

Design, Experimentation, Documentation, Theory.

Keywords

Personas, User-Created Personas, Usability, User Experience, Cross-Cultural Design, PD, Indigenous Knowledge.

1. INTRODUCTION

Persona functions as a surrogate of a group of users with common goals, attitudes and traits when interacting with a technological product or a service [27]. Persona current widespread use and support among designers is in sharp contrast with the paucity in research [26] and experiential usage [17] that provokes scepticism among many researchers and practitioners in using persona in design decision-making [33]. Empirical scarcity is greater outside the West [24], where persona is mainly created following dominant procedures [1, 20, 15, 18] despite Cultural Usability

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SIGDOC'15, July 16 - 17, 2015, Limerick, Ireland

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ACM 978-1-4503-3648-2/15/07...\$15.00.

DOI: <http://dx.doi.org/10.1145/2775441.2775484>

proving predominant design approaches as unsuited in other mental [16] and geographical realms [32, 34]. Under this premise Nielsen ultimately questions if persona may also be understood differently in diverse cultural spots [24].

This report pinpoints first a set of theoretical benefits and pragmatic challenges credited to persona as a communicational item in design. Then it argues for persona adaptation in differing locales. Thirdly, it summarises the aims and objectives of an ongoing persona project situated in pastoral Namibia that attempts to find out how rural Otjiherero speakers take on, understand and create personas through probes motivated by the benefits commonly attained by persona. A set of data from three locales in two asynchronous sessions per site is described, and the findings analysed as they emerged in the form of narrative content, rhetorical preferences and physical layout of initial persona artefacts. The report concludes reflecting on the present challenges and breakthroughs, while it also indicates forthcoming persona activity in rural Namibia.

2. PERSONA: BENEFITS & CHALLENGES

Persona is commonly agreed as a surrogate of a group of users that strives to convey technological needs, requirements and desires typically by a name, a picture and a written narrative [21].



Karen Gross
Occupation: Web Master
Age: 28
Technology: Early Majority
Quote: *Stanley I need this today please?*

Karen owns the content on the site. And when she says *owns*, she means it. She's a perfectionist, always immaculately dressed, and she takes pride in making sure no typos, no incorrect information, and no bugs or other glitches ever find their way into her pages. When they do, she rallies the troops to get them fixed immediately. Karen has managed web content for about 3 years, but joined Joe's Photo about four months ago. She is a workaholic and a micro-manager that likes to keep a close eye on the status of all portions of the site and in production. Karen has previously worked in Corporate Communications and pays close attention to the image that the Web site presents. She doesn't do any programming, but knows HTML and has dabbled a little in graphic design for the fun of it. She is very specific in what she wants, and she works closely with the template designer. Karen enjoys knowing the site looks and works perfectly. She is always looking for ways to improve it and wants immediate notification when things need changing. She always takes time to workout every evening, her favorite are the spinning classes on Thursday nights. She lives in an apartment in Soho with her cat and her boyfriend, whom she's been seeing for a year now.

Figure 1. Typical UCD Persona portrayal, Nielsen [13].

A literature review focusing on the benefits commonly attributed to persona reveals ten vital targets widely credited to this artefact: (1) to create a grounded understanding of the targeted set of users; (2) provide early design needs and requirements from the users; (3) introduce and/or reinforce design thinking all throughout [33]; (4) encourage a shared vision of users' needs for efficiency [23]; (5) provide focus upon users' goals, requirements and traits [27]; (6) depict dimensions of ecosystems where users function [18];

- (7) complementary enhance other methods like PD and scenario;
- (8) steadily facilitate communication among all stakeholders [14];
- (9) seduce designers to empathizing with the end users [25], and
- (10) to enable the social and political of design to the surface [13].

Table 1. Persona Benefits

Creating an understanding of users;
Providing early design requirements;
Introducing or reinforcing design thinking;
Encouraging a shared vision of needs towards efficiency;
Providing focus on people's goals, requirements and traits;
Carrying dimensions of the ecosystem where users function;
Complementary enhancing methods such as PD and scenario;
Steadily facilitating the communication among stakeholders;
Building empathy towards users technologies are intended for;
Enabling social and political nature of design decisions.

Despite the benefits stated, persona faces further challenges in the (1) organic usage of grounded user-data in the UCD process [25]; (2) overall paucity of empirical persona research and reports [26]; (3) the lack of an agreed persona definition in literature [27], and (4) a thorough and throughout involvement of the users beyond the research phases currently endorsed by UCD. Consequence of the above is the ongoing reluctance and the debate on persona [30] as needing to validate its accuracy methodologically [3]. Meanwhile, projects often report on designerly assumptions [8], openly intuitive accounts about users in decision-making [6], or issues of organisational decision and power dimensions [2, 28]. These defies jeopardize the core endeavours of persona.

3. INTER/CROSS-CULTURAL PERSONA

Assuming that usability methods are influenced by the culture where they originate, data collected using such approaches is thus likely to get tainted when deployed in further afield sceneries [4]. Then, questioning on whether persona may look alike in different locales [24] becomes of outmost importance to the competent analysis and organisation of cross-cultural persona artefacts, the information these convey, and the physicality they depict when experienced, conveyed and communicated across cultures.

At present, most persona research and practice beyond Occidental milieus is carried out following westerly design conventions. Whether quantitatively [1, 19], qualitatively [18] or through mix methods [20], the common tactic of non-western persona projects is to gather user-data first, and then create personas following UCD concords. Hisham in Malaysia, though, assembles personas alongside elder users in participatory focus groups [15]. This is however done by introducing name, written narrative and picture upfront [21] instead of empowering users with a design scheme in their own terms [7]. Hisham though acknowledges what Getto and Amant [12] also corroborate: persona is a useful tool to gather cultural nuances and design expectations. Katre [17] equally develops a UCD persona layout that yet, it overtly grants cultural specificity to Mr Museum Conservator persona depiction in India. Conversely Chavan and Prabhu [4] claim attainment in their Bollywood adaptation of persona, as it applies sensitivity to the triggers enabling communication within the Indian culture.

It is our view that to advance persona empiricism worldwide, industry and scholars must thus continue to better understand relationships between Human-Computer Interaction concepts and methods, and their meanings to local and indigenous groups [5].

4. OBJECTIVES AND AIMS

With the above in mind, this section introduces the objectives and aims proposed as the standing point of this research [9]. Objectives are two-folded: (a) to empirically test the design process of user-generated personas with Otjiherero speakers in pastoral Namibia, and also (b) to assess the final outcomes and effectiveness in communicating UX goals. Aims are three-folded: (1) to learn whether probing methods that complementarily focus upon the persona benefits deliver on such benefits, and how this occurs in regards to goals of UX and persona representations; (2) whether the empirical conveyance, utility and usefulness of the artefacts elicited serves the persona communicative purpose towards the ongoing research, design, usability and forthcoming implementation of an Indigenous Knowledge (IK) Crowdsourcing Management System in Namibia [29]; and, (3) to compare the persona artefacts generated in these sites with those in literature.

It should be noted that at this stage in the project participants are not expected to obtain fully formed persona artefacts. Rather, the initial enquire explores ways to understand users in these settings and the goals of UX they may embrace and prefer in this phase.

5. USER-CREATED PERSONAS

The subsections below present and reflect on findings about narrative content, rhetorical inclinations and physical appearance of persona artefacts as attempted thus-far by rural Otjiherero speakers, and they also get related to the benefits brought about.

5.1 Narrative content

5.1.1 Okomakuara I

In this session in the village of Okomakuara, eight women talked about the niceness of families and their likeability of flowers as described in [10]. Participants agreed on families being nice and flowers likeable. Yet, when kindly asked if they garden any flowers, they in turn acknowledged not doing so. Requested to move into matters of present concern towards improving futures, a participant immediately sparked a query on whether foreign researcher posing the request knew who they were (Figure 2). Researcher answered a friendly *Hereros* and, we observed, this somewhat functioned as a cue to the rest of the group in that a participant overtly conveyed her desire to regain the cattle she had lost against her brother, and for which her daughter furthermore expressed the need to own a computer to manage such cattle [10].



Figure 2. Participant asks researcher on “who they are”.

or avoiding losing face [51]. It also provided *focus on people's goals, requirements and traits* to do with recovering authority on owned cattle and with traditionally-bound gendered issues, as well

as on a future *provision of design requirements* through the computer demand to manage the cattle on their own.

5.1.2 Otjinene I

In the village of Otjinene, a focus group with an elder couple revealed data about chores and the physical arrangement of the homestead, and on affordances in and around the house [10]. Data on husband's "elder status" also emerged through objects that he genuinely owns like a hat, a chair, a knife and a cane (Figure 3).



Figure 3. Elder couple interview, Otjinene.

Another prominent issue was the problem between youth villagers and alcohol. Upon further enquiring on this, the lady ventured asking whether researchers may do something about this matter, such as visiting and talking to alcohol-makers in Windhoek.

A subsequent session based on Rapid Ethnography (RE) [22], attempted to scaffold a user-created persona process to not avail. Objects and clues gathered by a researcher and presented to the couple did not fit their understanding of, for instance, an empty bottle of beer as an illustration of alcohol. They took-up the bottle as a danger for it can cut as well as create a fire when exposed to sunrays. The session ended-up rapidly and fruitless [10].

The deployment of RE allowed researchers to realise this type of ethnography may not be the way forward in cultural locales foreign to researchers. Through misunderstandings, however, this session allowed for a *deeper understanding of the users* in the implications of both, RE and the cross-cultural differing approaches to signifiers and signifies. The session also provided *dimensions of the ecosystem where users function* i.e. the homestead and the tree outside of it. Moreover, it provided *focus on traits* as per the elder's objects of status like the hat. More importantly, this session *enabled for the social and political nature of design decisions to surface* through the proposal by the woman to liaise with alcohol makers in the capital city Windhoek.

5.1.3 Okomakuara II

The second session in Okomakuara brought together three men and two women who were proposed to run a scenario where two youth were to marry due to an unexpected pregnancy. Participants soon built a scenario recalling the past in the village where they provided detail such as the way the village was thriving and the cattle looked after. To them it was better back then than nowadays with all youth presently gone to Windhoek. Yet, participants organically engaged with the scenario by adding goals, requirements and traits to the young couple and the elder as well.

The *complementarity of scenario in a PD session* and the *focus on goals, requirements and traits* of both couple and elders emerged as benefits provided when addressing this persona exploration.

5.2 Rhetorical preferences

5.2.1 Otjinene II

In a second visit to Otjinene, the same female elder described a scenario with a school-girl being sought-for by her father first, and then another where the girl had become a woman. She begun emphasising on emotions as the way she would describe the girl. She said it was not the same if the girl looked worried, playful, or was being spotlighted by other girls. Detail on physicality, though, did not go beyond being groomed. The girl turned-into-a-lady, she stated, would carry personality traits from youth such as either drinking habits or politeness and respect. When asked for a physical depiction of the girl and the lady, she drew and coloured them (Figure 4). She then pinpointed detail like the girl being well-groomed and wearing an impeccable school uniform, and the lady wearing an Ovaherero dress with her arm up as a symbol of combativeness and a sense of defensiveness from, and defiance against colonial and repressive times (arm up in Figure 4).

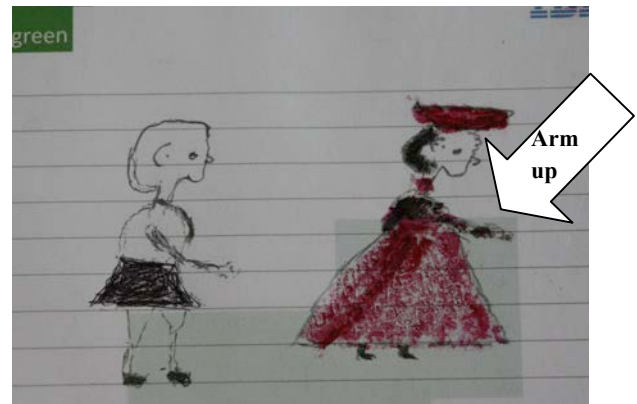


Figure 4. School-Girl & Girl turned into a lady.

Finally, when asked how she would transfer all the stated to the researchers, she claimed Ovaherero are orally-bound, thus she could repeat it all again for them to copy it and take it with them.

Supported by the *complementary enhancement of PD and scenario*, the elder revealed preferences in emotions over a full physical description of the girl. This, we argue, can be helpful in *building empathy towards users*, whereas the physical aspects provided through the drawings and the personality traits orally described *provide focus on people's goals, requirements and traits*. Peculiarities such as the arm-up furthermore disclose *social and political aspects relevant to design decision-making* [13]. Drawing thus served to depict physical portrayals that *enabled for social and political matters to come to the surface* by pointing the Ovaherero dress and the arm-up as resilient symbols enrooted in the Ovaherero history and culture; whereas the recurrent and explicit oral aspect of the descriptions as an Ovaherero feature, permit to denote oral rhetorical preferences in creating persona artefacts.

5.3 Physical layout

5.3.1 Erindiroukambe I

In the first visit to Erindiroukambe participants were presented with persona upfront. They did not understand it though, and went

on conveying physical aspects and affordances of the ecosystem they dwell-in to highlight what it is paramount to them. They used wooden sticks and a small tree branch to create the holy fire in front of the homestead, and a cow's poo to remark the importance of the food and financial income cattle provides [10]; also because poo serves them to build households with it (Figure 5).

Since they then run out of ideas, researchers proposed sorting cards despite their anomaly to this environment. Participants placed cards depicting Ovaherero along with the other materials. The created a hierarchical status of elder on top, wife below and a youngster to the side (Figure 5). To continue the session towards user-created persona, participants were proposed to describe themselves. Yet, they used single traits like "the funny" or "the doctor" as flawed self-statements corroborated afterwards [10].

Presenting persona straight did not hence work well, although participants conveyed *dimensions of the ecosystem where they function* towards scrutiny from further and sessions above. By the same token, the affordances in this locality highlighted what is important to them and the way in which the community is structured as per roles and hierarchies i.e. elder is most important.

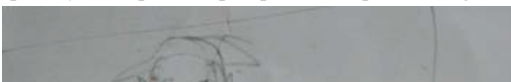
5.3.2 Erindiroukambe II

The second visit to Erindiroukambe was scenario-based, whereby needs, requirements and traits of an elder against those of a youngster were selected and refined by participants. Features such as weak bones and lack of agility were pointed on the elder, and in contrast to these being strengths of youngsters. When asked about the physical portrayal of these individuals, they proposed to draw, though they agreed a youngster must do this due to the argued lack of sketching skilfulness by elders. In drawing, hat, chair and stick appeared as in previous sessions (Figure 6).

As before in this milieu, the benefit of *carrying dimensions of the ecosystem where users function* emerged in the form of an arrangement whereby Homestead, holy fire and elder were prominent and strategically presented in this session as well.

Besides, participants now *focused on requirements and traits* through physical hurdles of an elder against the strength of youth.

In this session as in others above, a physical representation of individuals and affordances occurred. Participants specifically depicted elements in full length as in Figures 4, 5 and 6 (cropped due to quality issues). This is a noticeable feature contrasting with typical portrayals of persona passport-sized photos (Figure 1).



6. CONCLUSIONS

This experience report informs upon the first steps towards user-created-personas by Otjiherero speakers in Indigenous Namibia.

As initially expected, not fully-formed persona artefacts came from this initial enquiring. And when this was overtly proposed, participants ended-up stereotyping themselves [10].

Conversely, the different sessions and methods positioned proved that to the degree it is feasible at this stage in the research process persona benefits can and did certainly emerge from probing methods such as descriptive scenarios and focus groups. Moreover, this provided with a set of cultural nuances in the form of specific narratives, rhetorical preferences and physical layout.

6.1 Narrative content

In terms of narrative content, characteristics of a collectivistic culture in keeping face within the group [31] have been noted. This must not however detain researchers from eliciting relevant data sometimes hidden behind the mask provided by the fear of face-loss. While the aim is to deliver from uncovering this layer, respect and support to participants are all-time priorities.

Rapid Ethnography utterly failed in its aims, as in cultural locales foreign to researchers this method must not be overestimated.

As importantly, social, traditional and political issues must not be overruled, as they cannot only provide with prominent findings on the culture, but also about problematic ongoing issues in the community such as alcohol consumption among the youth.

Participants describing themselves created flat depictions with one only trait, whereas scenarios concerning third parties proved attainable and deeply enriching to elicit data that scaffolds the user-generated persona aims and objectives of this project.

6.2 Rhetorical preferences

Findings above display an enrooted and explicit sense of orality in Otjiherero speaking locales. This contrasts with the focus by Nielsen [23] in cross-culturally comparing written narratives and in that the implicit assumption is therefore that all design professionals must be versed in, and acquainted with reading. In Otjiherero speaking sites we have witnessed and been openly informed orality prevails over written communication. This is paramount when users create persona artefacts themselves in these contexts, as it will clearly facilitate providing on needs,

requirements and aspirations. As such, further type of *oral* personas may be the way ahead to empowering a relentless engagement of and respect towards participants in these settings.

Orality has, furthermore, proven to be emotion-driven rather than physically descriptive. An example comes from the emotional description of the girl provided by the woman in Otjinene II.

6.3 Physical layout

In regards to the physical appearance of persona, the ecosystem where users function and its affordances showed paramount for such communities. The positioning of the homestead, the tree outside, and the holy fire are deeply embedded in these locales.

Besides, objects of status such as the elder's hat, chair and cane must not be underestimated, as they also showed to be deeply enrooted in the communities and the respect paid to their elders. This is similar in regards to the hierarchical structures of Otjiherero speaking communities.

Full-size depictions were consistent and prevailed throughout as important features to bear in mind in future persona sessions. Additionally, drawings came with explicitly acknowledged connotations such as the traditional female Ovaherero dress and the woman's arm up as though marching. These are symbols of resilience and historical suffering embedded in Ovaherero culture.

7. FURTHER WORK

A series of initial probes enabled a first contact with pastoral Otjiherero speakers and a taste on how some of these communities take on the persona concept. These showed both, that a great amount of care must be placed when working outside one's comfort-zone [10] and a great potential to continuing the current user-generated persona exploration by focusing on the benefits arguably attained by persona.

Further probes will thus scaffold from the above and will be aimed to continue observing and reporting on persona as created by Otjiherero speakers in rural Namibia so as to find out how they now understand and create persona artefacts for UX.

A next step is to progressively keep probing results elicited up-to-today in order to contrast present findings in further Otjiherero speaking locales, and so to begin drawing conclusions or reshapes. Discoveries such as full-size depictions of people and things alike are examples of the way forward to building this user-generated persona research project.

Intended for the imminent future is a probing on the computer requested to manage cattle by mother and daughter in Okomakuara. A session whereby they can provide their idea of a computer and the elicitation and subsequent designerly presentation of needs, requirements and aspirations may be a way forward in shaping personas with technological specific purposes.

Regarding goals of UX, a further, specific analysis of the data presented above is being carried out at present. This is in order to establish a cohesive line of work towards future interventions and the eventual comparative study intended between persona artefacts elicited in these settings and persona as held in literature.

Last but nonetheless, further sessions have been deployed alongside further rural communities in Namibia such as Ovambo rural migrants living in informal settlements in the capital of Namibia [11] and Ovahimba in the North of the country. Further

sessions with these communities are also planned to compare the way persona artefacts for UX are elicited in such communities.

8. ACKNOWLEDGMENTS

We thank all communities involved in the project for their time, enthusiasm and understanding of the cultural differences, as well as to the local researchers for their constant support and guidance.

9. REFERENCES

- [1] Aquino Jr, P.T., Filgueiras, L.V.L. 2005. User modeling with personas, in: Proc. of the CLIHC '05. Presented at the CLIHC'05, ACM Press, Cuernavaca, Mexico, pp. 277–282. DOI= <http://doi.acm.org/10.1145/1111360.1111388>.
- [2] Bødker, S., Christiansen, E., Nyvang, T., Zander, P.-O., 2012. Personas, people and participation: challenges from the trenches of local government, in: Proc. of the 12th PDC. Presented at the 12th PDC, ACM Press, Roskilde, Denmark, pp. 91–100. DOI= <http://doi.acm.org/10.1145/2347635.2347649>
- [3] Chapman, C.N., Millan, R.P., 2006. The Personas' New Clothes: Methodological and Practical Arguments against a Popular Method, in: Proc. of the HFES'06. Presented at the HFES'06, pp. 634–636. DOI= <http://doi.acm.org/10.1177/154193120605000503>
- [4] Chavan, A.L., Prabhu, G.V. (Eds.), 2011. Innovative Solutions: What Designers Need to Know for Today's Emerging Markets. CRC Press, Boca Raton, London.
- [5] Clemmensen, T., Campos, P.F., Katre, D.S., Abdelnour-Nocera, J., Lopes, A., Orngreen, R., Minocha, S., 2013. CHI 2013 human work interaction design (HWID) SIG: past history and future challenges, in: Proc. of the CHI'13. Presented at the CHI EA'13, ACM Press, pp. 2537–2540. DOI= <http://doi.acm.org/10.1145/2468356.2468824>.
- [6] Cooper, A., 1998. The Inmates Are Running the Asylum: Why High Tech Products Drive Us Crazy and How to Restore the Sanity. Sams Publishing, Indianapolis, IN, USA.
- [7] Dourish, P., Mainwaring, S.D., 2012. Ubicomp's Colonial Impulse, in: Proc. of the UbiComp'12, Presented at the UbiComp'12, ACM Press, Pittsburgh, USA, pp. 133–142. DOI= <http://doi.acm.org/10.1145/2370216.2370238>
- [8] Friess, E., 2012. Personas and decision making in the design process: an ethnographic case study, in: Proc. of the CHI'12. Presented at the CHI'12, ACM Press, Austin, Texas, USA, pp. 1209–1218. DOI= <http://doi.acm.org/10.1145/2207676.2208572>
- [9] G. Cabrero, D., 2014. Participatory design of persona artefacts for user eXperience in non-WEIRD cultures, in: Proc. of the 13th PDC'14. Presented at the PDC'14, ACM Press, Windhoek, Namibia, pp. 247–250. DOI= <http://doi.acm.org/10.1145/2662155.2662246>.
- [10] G. Cabrero, D., Kapuire, G. K., Winschiers-Theophilus, H., Stanley, C., Rodil, K., Abdelnour-Nocera, J. 2015a. Reflecting User-Created Persona in Indigenous Namibia: what NOT to do when working in Foreign Land, in: Proc. of the C&T'15. Presented at the C&T'15. ACM Press, Limerick, Ireland – IN PRESS.
- [11] G. Cabrero, D. 2015b. User-Created Personas: A Micro-Cultural Magnifier revealing Smart Workplaces in thriving

- Katutura, in: Proc. of the HWID'15. Presented at the HWID'15. Springer, London, UK – IN PRESS.
- [12] Getto, G., Amant, K.S., 2014. Designing globally, working locally: using personas to develop online communication products for international users. *Commun. Des. Q. Rev.* 3, 24–46. DOI= <http://doi.acm.org/10.1145/2721882.2721886>
- [13] Grudin, J., 2003. The west wing: fiction can serve politics. *Scand. J. Inf. Syst.* 15, 73–77.
- [14] Grudin, J., Pruitt, J., 2002. Personas, participatory design and product development: An infrastructure for engagement, in: Proc. of the PDC '02. Presented at the PDC '02, Malmö, Sweden, pp. 144–161.
- [15] Hisham, S., 2009. Experimenting with the use of persona in a focus group discussion with older adults in Malaysia, in: Proc. OZCHI'09. Presented at the OZCHI'09, ACM Press, Melbourne, Australia, pp. 333–336. DOI= <http://doi.acm.org/10.1145/1738826.1738889>
- [16] Jiang, Y., Sun, X., Li, H., Yammiyavar, P., Kumar, J., Hertzum, M., Hornbæk, K., Shi, Q., Clemmensen, T., 2009. A Cross-Cultural Study of How Usability Professional Experience the Usability of Everyday Systems, in: Proc. of the IEA'09. Presented at the IEA'09, Beijing, CN, pp. 1–6.
- [17] Katre, D.S., 2007. User Persona: Its Application and The Art of Stereotyping. *J. HCI* 2.
- [18] Lecomte, C., Blanco, E., Trompette, P., Cholez, C., 2013. Towards a Better Frugal Design using Persona - issues and insights from an ethnography on prosthetics in Vietnam, in: Proc. of the IICCI. Presented at the IICCI'13, Paris, France, pp. 1–19.
- [19] Leme, R.R., Zaina, L.A.M., Casadei, V. 2014. Interaction with Mobile Devices on Social Networks by Elderly People: A Survey in Brazil with Facebook, in: Proc. of the CLEI'14. Presented at the CLEI'14, IEEE, Montevideo, Uruguay, pp. 1–7. DOI= <http://doi.acm.org/10.1109/CLEI.2014.6965103>
- [20] Masiero, A.A., Leite, M.G., Filgueiras, L.V.L., Aquino Jr, P.T. 2011. Multidirectional knowledge extraction process for creating behavioral personas, in: Proc. IHC-CLIHIC '11. Presented at the IHC-CLIHIC'11, Brazilian Computer Society, Porto de Galinhas, PE, Brazil, pp. 91–99.
- [21] Miaskiewicz, T., Sumner, T., Kozar, K.A., 2008. A latent semantic analysis methodology for the identification and creation of personas, in: Proc. of the CHI'08. Presented at the CHI'08, ACM Press, Florence, Italy, pp. 1501–1510. DOI= <http://doi.acm.org/10.1145/1357054.1357290>
- [22] Millen, D.R., 2000. Rapid ethnography: time deepening strategies for HCI field research, in: Proc. of the DIS '00. Presented at the DIS'08, ACM Press, Brooklyn, New York, pp. 280–286. DOI= <http://doi.acm.org/10.1145/347642.347763>
- [23] Mulder, S., Yaar, Z., 2007. The User Is Always Right: A Practical Guide to Creating and Using Personas for the Web. New Riders, Berkeley, CA, USA.
- [24] Nielsen, L. 2008. Different Cultures' Perception of Personas Descriptions. Proc. of the NordiCHI'08. Workshop presented at the NordiCHI'08, ACM Press, Lund, Sweden, pp. 43–46.
- [25] Nielsen, L., 2013. Personas: User Focus Design. Springer, London.
- [26] Nielsen, L., Hansen, K.S., 2014. Persona is Applicable: A Study on the Use of Personas in Denmark, in: Proc. of the CHI '14. Presented at the CHI '14, ACM Press, Toronto, Canada, pp. 1665–1674. DOI= <http://doi.acm.org/10.1145/2556288.2557080>
- [27] Putnam, C., Kolko, B., Wood, S., 2012. Communicating about users in ICTD: leveraging HCI personas, in: Proc. of the ICTD'12. Presented at the ICTD, ACM Press, Atlanta, GA, USA, pp. 338–349. DOI= <http://doi.acm.org/10.1145/2160673.2160714>
- [28] Rönkkö, K., Hellman, M., Dittich, Y., 2008. PD Method and Socio-Political Context of the Development Organization, in: Proc. PDC 2008. Presented at the PDC 2008, Indiana University, pp. 71–80.
- [29] Stanley, C., Winschiers-Theophilus, H., Onwordi, M., Kapuire, G.K., 2013. Rural communities crowdsource technology development: A Namibian Expedition, in: Proc. of the ICTD'13. Presented at the ICTD '13, ACM Press, Cape Town, South Africa. DOI= <http://doi.acm.org/10.1145/2517899.2517930>
- [30] Howard, T.W., 2015. Are personas really usable? *Commun. Des. Q. Rev.* 3, 20–26. DOI= <http://doi.acm.org/10.1145/2752853.2752856>
- [31] Ting-Toomey, S., Kurogi, A., 1998. Facework Competence in Intercultural Conflict: an Update Face-Negotiation Theory. *Int. J. Intercult. Relat.* 22, 187–225. DOI= [http://doi.acm.org/10.1016/S0147-1767\(98\)00004-2](http://doi.acm.org/10.1016/S0147-1767(98)00004-2)
- [32] Walker, K., Underwood, J., Waema, T., Dunkley, L., Abdelnour-Nocera, J., Luckin, R., Oyugi, C., Camara, S., 2008. A resource kit for participatory socio-technical design in rural Kenya, in: Proc. of the CHI'08. Presented at the CHI'08, ACM Press, Florence, Italy, pp. 2709–2714. DOI= <http://doi.acm.org/10.1145/1358628.1358749>
- [33] Williams, I., Brereton, M., 2014. A Collaborative Rapid Persona-Building Workshop: Creating Design Personas with Health Researchers. *Int. J. Sociotechnology Knowl. Dev.* 6, 17–35. DOI= <http://doi.acm.org/10.4018/ijskd.2014040102>
- [34] Winschiers-Theophilus, H. 2009. The Art of Cross-Cultural Design for Usability, in: Proc. of the UAHCI'09. Presented at the UAHCI'09, Springer, San Diego, CA, USA, pp. 665–671. DOI= http://doi.acm.org/10.1007/978-3-642-02707-9_75